WHAT IS CLAIMED IS:

1. An apparatus for providing an activation signal based on a received radio frequency (RF) signal, the apparatus comprising:

an RF receiver configured to admit a received RF signal in a given frequency band;

a converter configured to convert the admitted RF signal to a proportional signal;

a low power comparator that has a first and second input and an output; and

a biasing and offset compensation circuit configured to bias the proportional signal higher by an offset midrange voltage and bias the second input to an offset compensated voltage based on an offset between the first and second input of the low power comparator,

wherein the comparator is configured to receive the biased proportional signal at the first input and produce the activation signal at the output when a voltage difference between the biased proportional signal and the offset compensated voltage at the second input exceeds a comparison voltage threshold.

2. The apparatus of claim 1, wherein the biasing and offset compensation circuit comprises:

a first voltage divider circuit configured to bias the proportional signal higher by the midrange offset voltage; and

a second voltage divider circuit configured to compensate for the offset between the first and second input of the low power comparator.

3. The apparatus of claim 2, wherein the second voltage divider circuit includes a voltage adjustment means.

4. The apparatus of claim 3, wherein the voltage adjustment means is a variable resistor.

5. The apparatus of claim 1, wherein the RF receiver comprises:

an antenna configured to receive the RF signal; and

a filter configured to filter the received RF signal to admit only RF signals in a given frequency band.

6. The apparatus of claim 5, wherein the antenna is a loop antenna.

7. The apparatus of claim 5, wherein the filter comprises an inductive-capacitive (LC) resonant circuit.

8. The apparatus of claim 7, wherein the LC resonant circuit includes the inductance of the antenna.

9. The apparatus of claim 7, wherein the LC resonant circuit resonates at a frequency of approximately 916.5 MHz.

10. The apparatus of claim 1, wherein the converter comprises:

a rectifier configured to rectify the admitted signal; and

a capacitor configured to accumulate and store the rectified signal, wherein the proportional signal is a voltage stored in the capacitor.

11. The apparatus of claim 10, wherein the capacitor is configured to accumulate and store the rectified signal until the produced proportional signal exceeds the comparison voltage threshold.

12. The apparatus of claim 10, wherein the rectifier is a half-wave rectifier comprising a zero bias Schottsky diode.

13. The apparatus of claim 1, wherein the comparison voltage threshold is approximately 250 μV.

14. The apparatus of claim 1, wherein the midrange offset voltage is approximately 5.1 mV.

15. The apparatus of claim 1, wherein the offset between the first and second input of the low power comparator is between -5 mV and 5 mV.

16. The apparatus of claim 1, wherein the low power comparator requires less than 1 μA of supply current during operation.

17. The apparatus of claim 1, wherein the activation signal instructs a microprocessor to change modes of operation.

18. A method for providing an activation signal based on a received RF signal, the method comprising:

admitting a received RF signal in a given frequency band;

converting the admitted RF signal to a proportional signal;

biasing the proportional signal higher by an offset midrange voltage, the biased proportional signal being provided to a first input of a low power comparator;

biasing a second input of the low power comparator to an offset compensated voltage based on an offset between the first and second input of the low power comparator,

comparing the biased proportional signal to the offset compensated voltage; and

producing an activation signal at an output of the low power comparator when a voltage difference between the biased proportional signal and the offset compensated voltage exceeds a comparison voltage threshold.

19. An apparatus for providing an activation signal based on a received RF signal, the apparatus comprising:

means for admitting a received RF signal in a given frequency band;

means for converting the admitted RF signal to a proportional signal;

means for biasing the proportional signal higher by an offset midrange voltage, the biased proportional signal being provided to a first input of a low power comparator;

means for biasing a second input of the low power comparator to an offset compensated voltage based on an offset between the first and second input of the low power comparator,

means for comparing the biased proportional signal to the offset compensated voltage; and

means for producing an activation signal at an output of the low power comparator when a voltage difference between the biased proportional signal and the offset compensated voltage exceeds a comparison voltage threshold.

20. An apparatus for providing an activation signal based on a received RF signal, the apparatus comprising:

an RF receiver configured to admit a received RF signal in a given frequency band;

a converter configured to convert the admitted RF signal to a proportional signal;

a low power comparator that has a first and second input and an output; and

a biasing and offset compensation circuit configured to bias the proportional signal higher by approximately 5.1 mV and bias the second input to an offset compensated voltage based on an offset between the first and second input of the low power comparator,

wherein the comparator is configured to receive the biased proportional signal at the first input and produce the activation signal at the output when a voltage difference between the biased proportional signal and the offset compensated voltage at the second input exceeds 250 μV.